Research foci: ecosystem modeling, forest regeneration, remote sensing of terrestrial ecosystems, spatial data analysis, fire, animal movement and habitat selection

Education

UC Berkeley, PhD in Energy and Resources   2018 – May, 2022 (expected)
    GPA 3.9 (M.S. & PhD)

UC Berkeley, M.S. in Energy and Resources   2016 – 2018

Pitzer College, Claremont University Consortium,
BA Environmental Science, GPA 3.87   2006-2010

Fellowships and Work Experience

NASA Fellowship: Future Investigator in NASA Earth and Space Science Technology
Sept, 2020 - present
   • 3 years of funding to use satellite observations to study post-fire forest regeneration
   • Insights used to improve vegetation demographic models

NSF Research Traineeship: Data Science for the 21st Century, Student Fellow
2018-2020
   • 2-year fellowship in data science training, 1 year of funding from NSF
   • Coursework and applied projects in data science for environmental analysis

UC ANR, Graduate Training in Cooperative Extension, Student Fellow
2018 – 2019
   • 1-year fellowship with UC Division of Agriculture and Natural Resources (ANR) to perform research on wildlife conflict on California's North Coast

UC Berkeley / Lawrence Berkeley National Lab, Graduate Student Researcher
Jan, 2017 – Aug 2018

   • Worked with Professor Lara Kueppers and the Earth and Environmental Sciences team at LBNL to improve the way vegetation demographic models represent forest regeneration

TerViva Inc., Research Associate   *Jul 2011 – June 2014; Dec, 2015 – Aug,2016*

   • TerViva is an innovative agricultural company (www.terviva.com) focused on the commercialization of a sustainable tree crop: *Millettia pinnata* (pongamia).
   • I reported to the Chief Technical Officer and carried out research on the ecology, agronomy, and genetics of *Millettia pinnata* to inform decisions about its development and global commercialization as a novel crop for protein and bioenergy.

SHARP, Avian and Vegetation Survey Technician
May 1ˢᵗ, 2015 – July 31ˢᵗ, 2015

- Avian point counts and vegetation transect surveys for SHARP (Saltmarsh Habitat and Avian Research Program), a federally funded research initiative

NSF REBMI Fellowship (Research at the Biology-Mathematics Interface)
May 24ᵗʰ, 2010 – Jul 15ᵗʰ, 2010

- NSF-funded field research fellowship in ecology in Costa Rica.
- Worked in tropical lowland rainforest studying tree demography and rates of carbon sequestration to support the eventual goal of monetizing conservation practices via market mechanisms such as REDD.
- Identified, mapped, and managed data on hundreds of individual trees

Publications

Hanbury-Brown, A., Muller-Landau, H., Wright, J., Powell, T., Kueppers, L. 2022. Simulating environmentally sensitive tree recruitment in vegetation demographic models. Accepted at *New Phytologist*.

Hanbury-Brown, A., Ward, R., Kueppers, L. 2022. Future forests within Earth system models: regeneration processes critical to prediction. Accepted at *New Phytologist* (Tansley Review).

Hanbury-Brown, A. R., J. W. Stackhouse, and L. T. Macaulay. 2021. Elk conflict with beef and dairy producers poses wildlife management challenges in northern California. *Ecology and Society* 26(1):23.

McDowell NG, Allen CD, Anderson-Teixeira K, Aukema BH, Bond-Lamberty B, Chini L, Clark JS, Dietze M, Grossiord C, **Hanbury-Brown A**, et al. 2020. Pervasive shifts in forest dynamics in a changing world. *Science* 368: eaaz9463–eaaz9463.

Hanbury-Brown, A. 2009. Physical and Biological Cycles of the Oceans and their Effects on Climate. Chapter 2 in Morhardt, J. E. [ed], 2009. Global Climate Change and Natural Resources. Roberts Environmental Center Press. Claremont, California.

Other

Launched EcoScienceWire.com (Fall, 2015) **–** reporting on the latest science behind our changing planet. EcoScienceWire converts impactful scientific articles on conservation and the environment into engaging one-pagers for a broad audience.

Programming Languages: R, Fortran, BASH / Linux, Python, Javascript (limited to Google Earth Engine API)